



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

811

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/556,127 04/20/00 KURANE

R 0163-0758-0X

022850 HM12/0316
OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT
FOURTH FLOOR
1755 JEFFERSON DAVIS HIGHWAY
ARLINGTON VA 22202

EXAMINER

FREDMAN, J.
ART UNIT

PAPER NUMBER

1655
DATE MAILED:

03/16/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/556,127

Applicant(s)

Kurane et al

Examiner
Jeffrey Fredman

Group Art Unit
1655



☒ Responsive to communication(s) filed on Feb 21, 2001

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-45 is/are pending in the application.

Of the above, claim(s) 1, 12-14, 16-20, 22, and 27-45 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2-11, 15, 21, and 23-26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1655

DETAILED ACTION

Election/Restriction

1. Applicant's election with traverse of Group II, claims 2-15, 21, and 23-26 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the office has not shown evidence that the claimed invention can be used as suggested. Further, applicant argues that there is no serious burden. This is not found persuasive for two reasons. First, Applicant misapprehends the burden of evidence. MPEP 806.05(h) notes "The burden is on the examiner to provide an example, but the example need not be documented. If the applicant either proves or provides a convincing argument that the alternative use suggested by the examiner cannot be accomplished, the burden is on the examiner to support a viable alternative use or withdraw the requirement." Here, the examiner has provided several examples of other uses, including purification methods, chromosome karyotyping methods, or FISH methods. The examiner is under no obligation to document these examples. Applicant, to rebut, must either prove or provide convincing arguments why the exemplified uses cannot be accomplished. Applicant has not met this burden. Second, with regard to the issue of a serious burden, the separate classification of the groups is prima facie evidence of burden which applicant has not rebutted.

The requirement is still deemed proper and is therefore made FINAL.

Art Unit: 1655

Claim Objections

2. Claims 9-11, 15, 21 and 23-26 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from a multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is vague and indefinite what is meant by the term "phosphorylated" in claim 8. For purposes of the art rejection, this term was assumed to be phosphorylated.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Squirrell et al (U.S. Patent 5,750,337).

Squirrell teaches a nucleic acid probe labeled with a fluorescein fluorescent dye at the 3' end where a G or guanine base is both at the 3' terminus of the oligonucleotide and the third nucleotide from the 3' terminus (column 6, line 66, SEQ ID NO: 2). Upon hybridization to target,

Art Unit: 1655

this probe will form a hybrid between a G and C pair at the end portion. The reduction in fluorescence upon hybridization is an inherent property of the oligonucleotide

6. Claims 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsang et al (U.S. Patent 5,837,442).

Tsang teaches a nucleic acid probe (KY-150) which is labeled with a fluorescein fluorescent dye at the 5' end where a C or cytosine base is at the 5' terminus of the oligonucleotide and where the 3' end has been phosphorylated (column 9, lines 1-7). Upon hybridization to target, this probe will form a hybrid between a C and G pair at the end portion. The reduction in fluorescence upon hybridization is an inherent property of the oligonucleotide.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Han et al (U.S. Patent 5,763,181) teaches RNA-DNA chimeric molecules which are labeled at the termini with fluorescent labels. Hogan et al (U.S. Patent 5,030,557) teaches helper probes. Heller et al (6,017,696) teaches a device which uses heaters to control the optimal temperature conditions on an array of nucleic acid probes which are independently controlled.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Fredman, Ph.D. whose telephone number is (703) 308-6568.

Art Unit: 1655

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Group 180 by facsimile transmission via the P.T.O. Fax Center located in Crystal Mall 1. The CM1 Fax Center numbers for Group 1800 are either (703) 305-3014 or (703) 308-4242. Please note that the faxing of such papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989).



Jeffrey Fredman
Primary Patent Examiner
Art Unit 1655

March 14, 2001